

SOUNDING ROCKET WORKING GROUP

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Sounding Rocket Project Office
GSFC WFF
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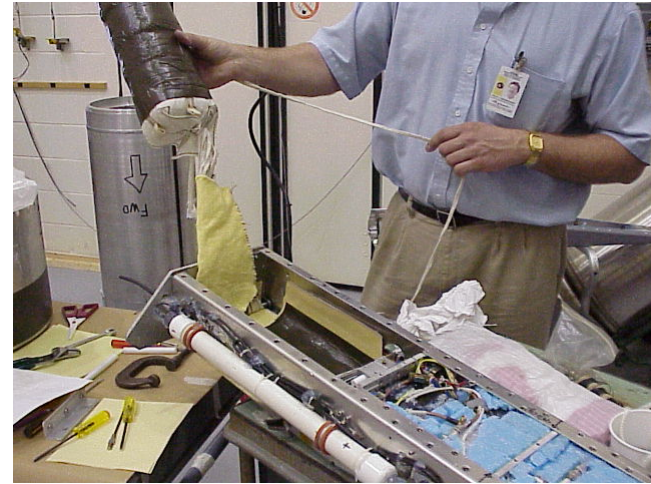
- At Wallops for 16+ years
- Cut my teeth in the Sounding Rockets Flight Vehicles and Systems Section
- PM for missions at Poker, Norway, Kwajalein, Puerto Rico, WSMR, WFF
- Sounding Rocket Go-Co Study Team & NSROC SEB Chairman
- 2+ years in WFF Policy and Business Office (formulation and implementation of new NASA projects)
- WFF 2005 Planning

Who Am I?



Philosophy

- Primary focus is on core Code S missions
- WFF to serve as rocketry experts
- Important thrusts:
 - Technology development
 - Expanded sounding rocket user community
 - Educational Outreach
- Strengthened outreach program can lead to an expanded user community, which in turn can help support the critical mass of NSROC personnel and ultimately offset costs for the Code S program.



Challenges / Goals

- Keep core Code S program vital and proactive
- Develop forward-thinking technology development effort
- Secure funding to support new technology efforts and educational outreach
 - Code S support core technology efforts
 - Alternate funding sources for technologies to support non-Code S missions
 - Multiple funding sources for outreach

Program Summary Charts

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FY 02 Sounding Rocket Summary

- 40 missions planned for FY 02
- 19 Missions Launched (*100% success*)
 - Disciplines
 - 1 Solar System Exploration
 - 15 Geospace Science
 - 1 Solar and Heliospheric Science
 - 2 Outreach
 - Sites
 - 3 WFF
 - 11 PFRR
 - 5 WSMR
- 3 Met Rockets Launched

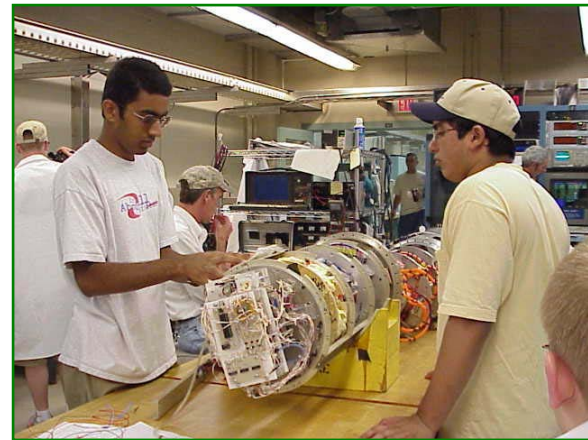
FY '02 Launch Schedule (cont)

		FY 2002	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
#	Vehicle Type	Mission												
		PFRR Continued												
23	Orion	HAWKINS/UNIV. OF ALASKA						▲						
24	Orion	LYNCH/UNIV. OF NEW HAMPSHIRE						▲						
25	Orion	LYNCH/UNIV. OF NEW HAMPSHIRE						▲						
26	Orion	LYNCH/UNIV. OF NEW HAMPSHIRE						▲						
27	Orion	LYNCH/UNIV. OF NEW HAMPSHIRE						▲						
		WSMR												
28	Black Brant IX	HARRIS/U. OF WISCONSIN			▲									
29	Black Brant IX	WOODS/UNIV. OF COLORADO					▲							
30	Black Brant IX	MARTINEZ-GARLARCE/STANFORD U.							▲					
31	Terrier-Orion	ERDMAN/EMBRY-RIDDLE UNIV.									▲			
32	Terrier-Orion	ERDMAN/EMBRY-RIDDLE UNIV.									▲			
33	Black Brant IX	KORENDYKE/NRL									△			
34	Black Brant IX	MARTIN/CAL TECH.									△			
35	Black Brant IX	MOSES/NRL											△	
36	Black Brant IX	JUDGE/USC											△	
37	Black Brant IX	WILKINSON/UNIV. OF COLORADO												△
38	Black Brant IX	PORTER/GSFC (TBD)												
		NORWAY												
39	Terrier-Orion	GOLDBERG/GSFC									△			
40	Terrier-Orion	GOLDBERG/GSFC									△			

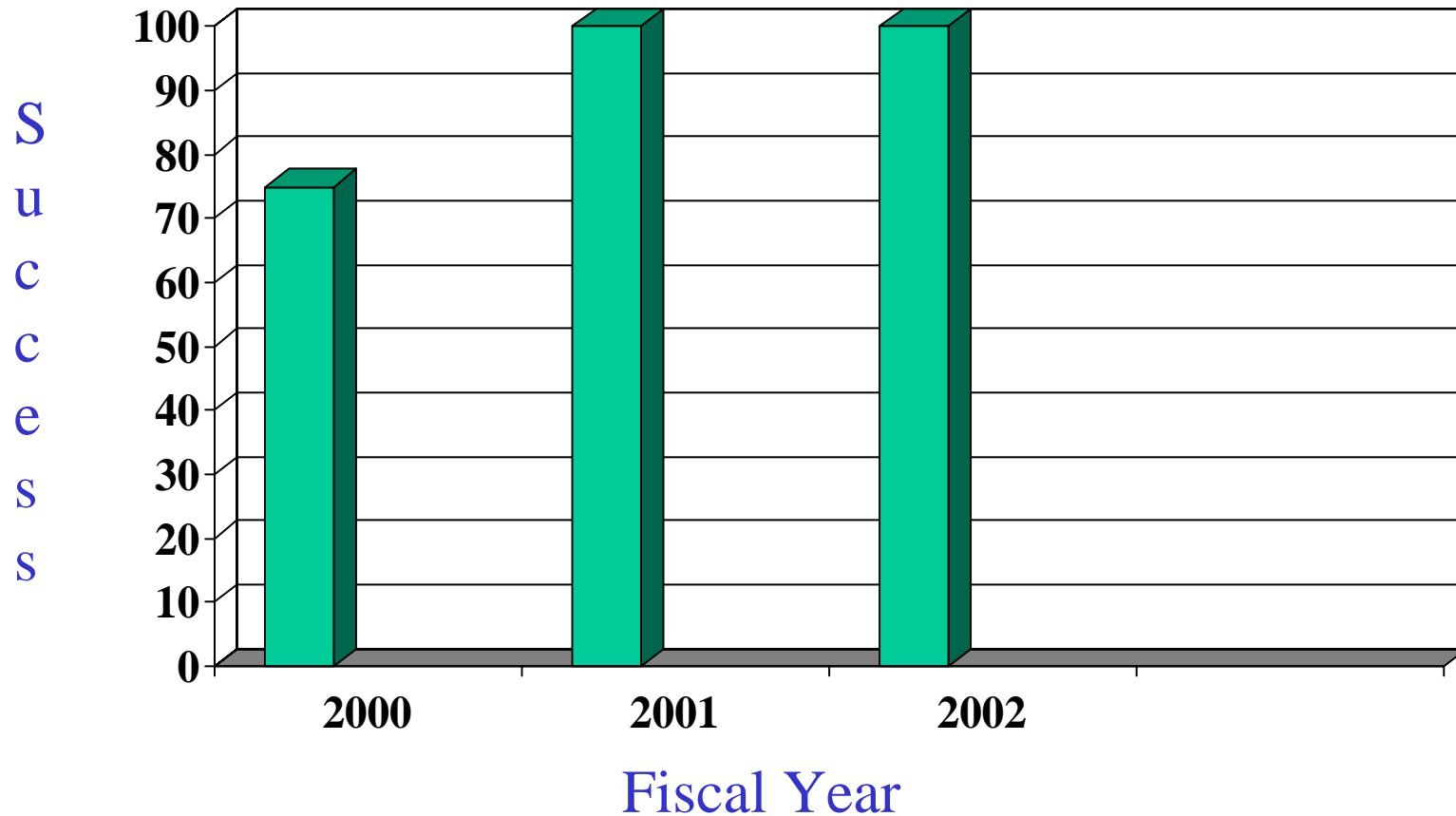
FY '02 Launch Schedule

		FY 2002	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
#	Vehicle Type	Mission												
		WALLOPS ISLAND												
1	Nike-Orion	CROSKEY/PENN STATE UNIV.								▲				
2	Nike-Orion	CROSKEY/PENN STATE UNIV.								▲				
3	Viper-Dart	CROSKEY/PENN STATE UNIV.								▲				
4	Viper-Dart	CROSKEY/PENN STATE UNIV.								▲				
5	Viper-Dart	CROSKEY/PENN STATE UNIV.								▲				
6	Viper-Dart	TEST MISSION									▲			
7	Orion	KOEHLER/NASA												
8	Black Brant VB	EARLE/UNIV. OF TEXAS												▲
9	Terrier-Orion	EARLE/UNIV. OF TEXAS												▲
10	Terrier-Orion	EARLE/UNIV. OF TEXAS												▲
11	Terrier-Orion	EARLE/UNIV. OF TEXAS												▲
12	Terrier-Malemute	HOWLETT/UTAH ST. UNIV. (TBD)												
13	Viper-Dart	LYNCH/UNIV. OF NEW HAMPSHIRE (TBD)												
14	Viper-Dart	LYNCH/UNIV. OF NEW HAMPSHIRE (TBD)												
		PMRF Kauai												
15	Terrier-Lynx	WINSTEAD/NAWC												
16	Terrier-Lynx	WINSTEAD/NAWC												
		PFRR												
17	Black Brant XII	KINTNER/CORNELL UNIV.				▲								
18	Black Brant XII	KLETZING/UNIV. OF IOWA					▲							
19	Black Brant VB	CHRISTENSEN/AEROSPACE CO.					▲							
20	Taurus-Orion	LARSEN/CLEMSON UNIVERSITY					▲							
21	Taurus-Orion	LARSEN/CLEMSON UNIVERSITY					▲							
22	Taurus-Orion	LARSEN/CLEMSON UNIVERSITY					▲							

Koehler Student Launch (Sub-SEM)



Sounding Rocket Success Rate Trend



What's on the Horizon?

- FY '03
 - 26 Code S missions
 - WSMR, Svalbard, Sweden, Poker, Norway, WFF
 - 4 Reimbursable missions
- FY '04
 - 14 Code S missions in Peru
 - Threat Assessment looking favorable
 - Site visit in early September

On-Going Technology Efforts

- Viper Darts
- NSROC Inertial ACS
- NSROC Magnetic ACS